Jobs for Degree/Diploma holders

†1765. SHRI ISAM SINGH: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) the number of students in the field of Science and Technology in the country who get diploma and BE degree every year;

(b) the number of diploma/degree holders who get jobs every year; and

(c) the action plan of Government to give employment to all these students?

THE MINISTER OF STATE OF THE MINISTRY OF SCIENCE AND TECHNOLOGY (SHRI KAPIL SIBAL): (a) to (c) The information is being collected and will be laid on the Table of the House.

Development of Improved Gene of Rice by Delhi University

1766. SHRIMATI N.P. DURGA: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether it is a fact that the scientists of the Department of Molecular Biology, Delhi University, have developed improved genes in a rice plant;

(b) if so, the details of reasearch carried out; and

(c) in what manner it helps in increasing the yield per acre?

THE MINISTER OF STATE OF THE MINISTRY OF SCIENCE AND TECHNOLOGY (SHRI KAPIL SIBAL). (a) and (b) The scientists of the Department of Plant Molecular Biology, University of Delhi, South Campus, New Delhi have not developed any improved genes in rice plant. Rather they have characterized a rice gene *OSISAP1* (*Oryza sativa* subspecies *indica* stress-associated protein gene 1) and introduced it into model test plant tobacco for investigation The expression of this gene was found to be induced by several stress stimuli. The gene has been shown to confer cold, dehydration and salt-stress tolerance in tobacco at seedling stage in experimental laboratory conditions.

† Original notice of the question was received in Hindi

(c) The potential of the gene regarding increased yield in a crop plant is not yet evaluated. However, to assess the utility of the gene in other crop plants, efforts are being made to introduce this gene in tomato and rice.

Scientific Institutions in country

1767. DR. K. KASTURIRANGAN: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether the number of peer reviewed research papers from scientific institutions in India has remained virtually static over the last decade while many other similarly placed countries have considerably improved their contributions,

(b) whether Government are aware of a recent study wherein only three Indian Universities found the place among the top 500 universities across the world, that too with ranking below 250; and

(c) if so, what steps Government propose to take to ensure India's prominent position in scientific research?

THE MINISTER OF STATE OF THE MINISTRY OF SCIENCE AND TECHNOLOGY (SHRI KAPIL SIBAL): (a) Comparison of research papers based on Science Citation Index (SCI) database has limitations as the number of journals covered for different countries is not uniform. However, the number of Indian Research papers published in absolute terms has increased from 11,319 in 1994 to 15,699 in 2003, as per the SCI database.

(b) Yes sir

(c) In order to give further impetus to science & technology, the Government have taken several initiatives such as raising the level of investment on Science and Technology to at least 2% of Gross National Product (GNP) by the end of 10th Plan with enhanced participation in R&D investment by industry, the 10th Plan S&T outlay for scientific agencies has been increased from Rs.12022.17 crores in 9th Plan to Rs.25243 00 crores, strengthening infrastructure in universities and higher educational institutions including establishment of several centres of excellence in frontline areas of science & technology, sophisticated analytical instrument facilities, nano materials science & technology initiative, fast-track schemes for young scientists manpower development programmes and various fiscal incentives for promoting R&D in industry